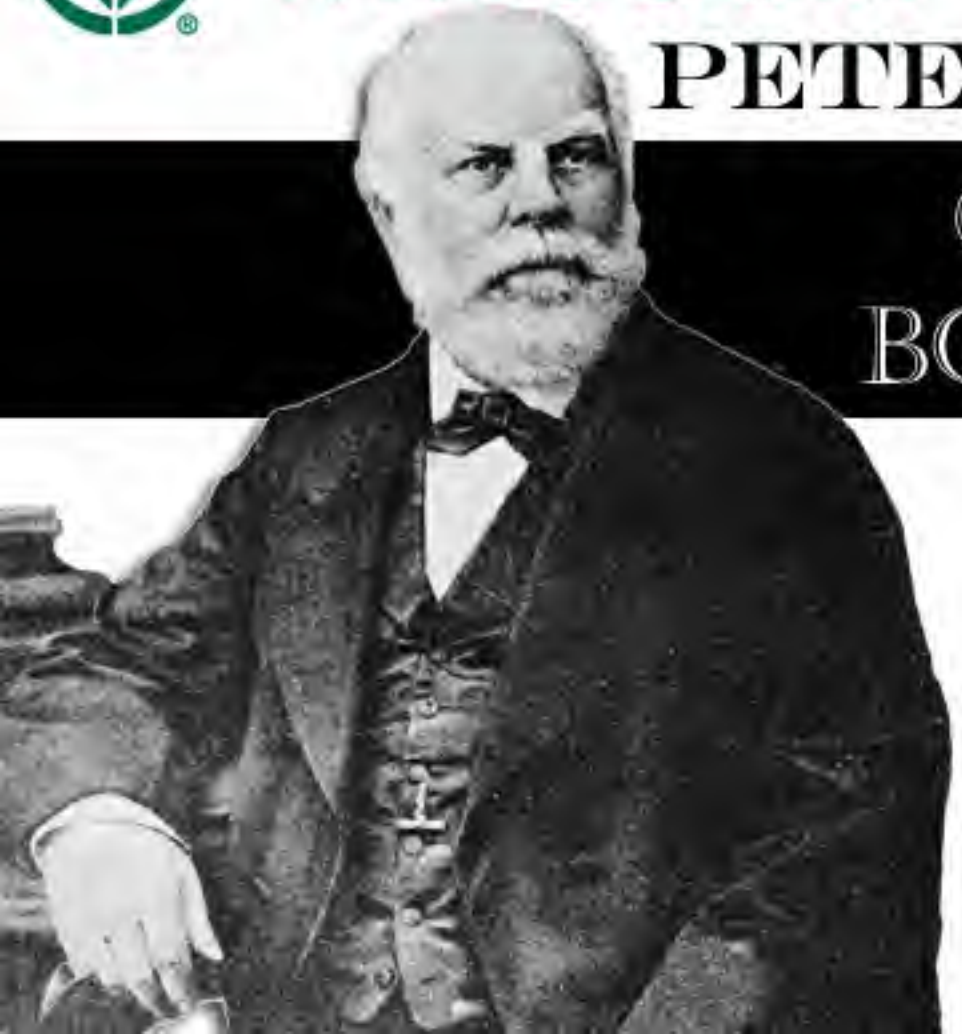
# Missouri Botanical Garden
## Peter H. Raven Library

# George Engelmann Botanical Notebooks



*Pagination Note:*
*Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.*

ering.

*Dimensions.*—Length, 0.20 of an inch; width, 0.18.

The *Elæacrinus Kirkwoodensis* is nearly allied to *E.* (*Pentremites*) *melo*, from which it is distinguished by its much smaller size and less deeply excavated base. It also occupies a higher geological position.

Occurs in the St. Louis Limestone (Carboniferous) on the Pacific railroad near Kirkwood, St. Louis county, Missouri.



Prof. Owen & Engelmann
St. Louis Mo. U.S.
Aug 23, 1843
291-5-

cm 0 1 2 3 4 5 6 7 8 9 10
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members of the party. We were travelling at the time by forced night marches with nearly worn out animals, seeking to gain a spring of water in a distant range of mountains. This desert was then entirely unexplored. I have but little doubt that more interesting materials are to be found at the same point.

The mountains of the former Territory of Utah promise a rich yield to the mineralogist. We know already of gold and silver ores in the east, west and south part of that district; of copper and lead ores in the south, and I have discovered the latter also in the centre of it; of specular iron ores and native sulphur in the Rocky Mountains and near Little Salt Lake; of rock salt in the mountains south-east of Utah Lake; of native alum near Salt Lake; of various other salts in the deserts; and of silicates, composing the granites, porphyries, diorites, trachytes, and lavas, nearly over the whole area.

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Linum Grenei O x J. Aug 14 1865
Plymouth mass (ex herb A Gr.)
Hr Eaton

×60

×10

anther equal to filament

larger, more distinctly ribbed than in Tenuis but equally cross-striolated

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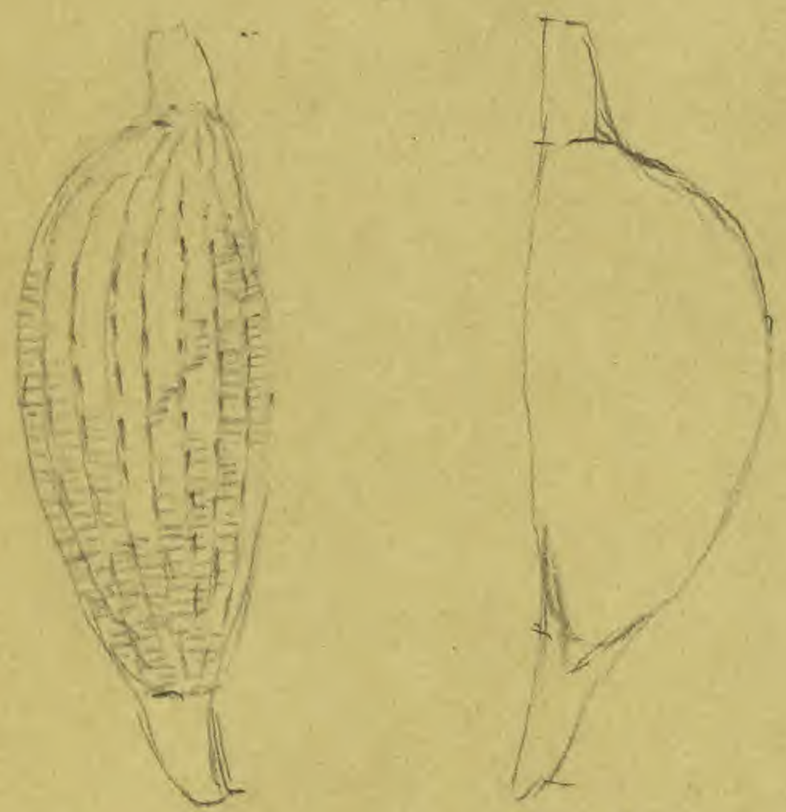
Limnanthes Gravesii
in arenosis siccis, Ipswich Mass Oakes
(Mr Gray)

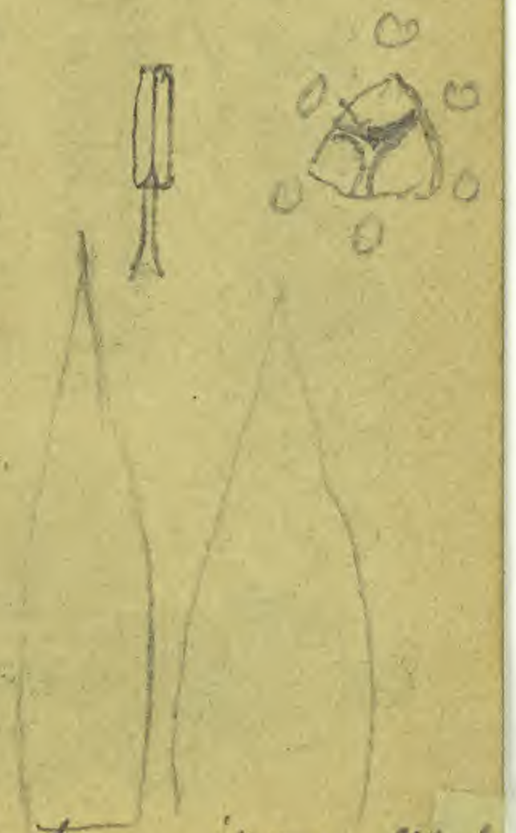
Nov. 9 1865

×60



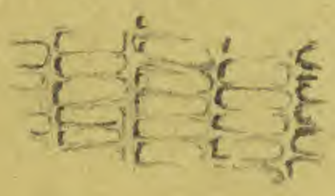
ribs distinct cross striation
much coarser than in tenuis

inner sepals
a little shorter



outer inner sepal

×150



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# Meyer

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8h26

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Juncus Greenii  March 9 1866

Plymouth, Mass

Seed leaves ×10

Foliis seminalibus

seed leaf from Rhode Island

seed leaf from Rhodiola

seed leaf from Saco River, Maine

seed of a form of the Common skunk cabbage

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*L. Greenii*

Aug 27 1866

Father Holzer

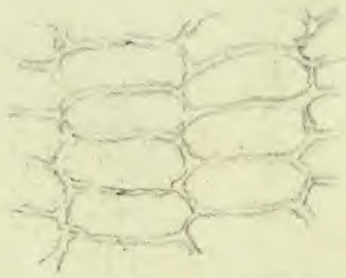
Detroit.

Lorenz

×60

abt 8 nibs

Section of leaf ×10
from lowest to
upper part.



×150

flower

sepals ciliate obtuse insula
bracteate

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Juncus Greenii"

| | H. Oberstad. | Gray | Engelm. |
|---|---|---|---|
| White Mtns on Saco | | Fuckerman | (Tuck.) |
| Coast of Massachusetts | | Greene | Gray |
| Ipswich – | | Oakes | (Oak.) |
| Rhode Island | Olney | Olney | Olney |
| Detroit | – | Holzer & Sipley | |

# Alex. Lerch

## APOTHECARY & PHARMACEUTIST,

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1951

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sun's rays, by light and heat, but by the greater or less distance from the sun; and, as the same law holds good for terrestrial magnetism, it confirms my opinion, formerly expressed, that atmospheric electricity and terrestrial magnetism are closely allied emanations of the same force, derived in some way yet unexplained from the mass of the sun. Hence this increase in intensity by greater approach to the sun without regard to or notwithstanding the greater light and heat of the sun's rays. If, as I proposed in my former paper, regular observations of atmospheric electricity should be made in the southern hemisphere leading to the same result, this supposition of mine would then be established as a fixed fact.

Let us compare now the monthly mean of atmospheric electricity with that of relative humidity. The monthly mean of relative humidity is by far less regular than that of temperature and electricity, and is in all likelihood not a cause of electricity, but one of its modifying influences, distributing it through the atmosphere and conducting it to the earth. We find therefore, generally, high relative humidity corresponding with diminution of electricity.

It seems, also, that the direction and prevalence of winds has no direct causal connection with positive atmospheric

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minimum about 3 P.M., the second lesser one about 9 P.M. Prof. Dellmann ascribes this daily periodicity to the direct action of the sun's rays, assuming that the first electric maximum appears soon after a minimum of heat in the morning, and the first electrical minimum soon after a maximum of heat in the evening. But this supposition does not correspond with the result of my observations made in St Louis. The first electrical maximum here appears about three hours after sunrise, and the first electrical minimum does not follow but coincides with the greatest heat of the day, about 3 o'clock in the afternoon; the second electrical maximum appears about sunset or soon after, and the second minimum about 9 o'clock in the evening and is prolonged till about 3 o'clock in the morning. I am unable to understand, how the increasing power of the sun's rays should produce succes-

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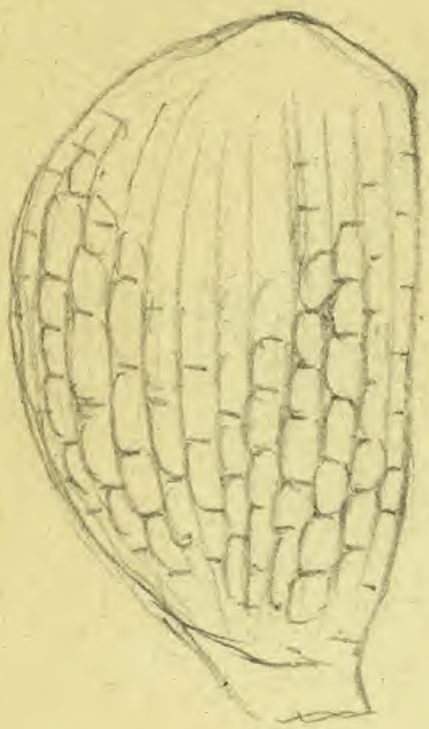
*L. squarrosa. Lin*

*Europe*

Nov 15 1865

×60



*sepals acuminate*
*lanceolate channeled*
*subobtuse*

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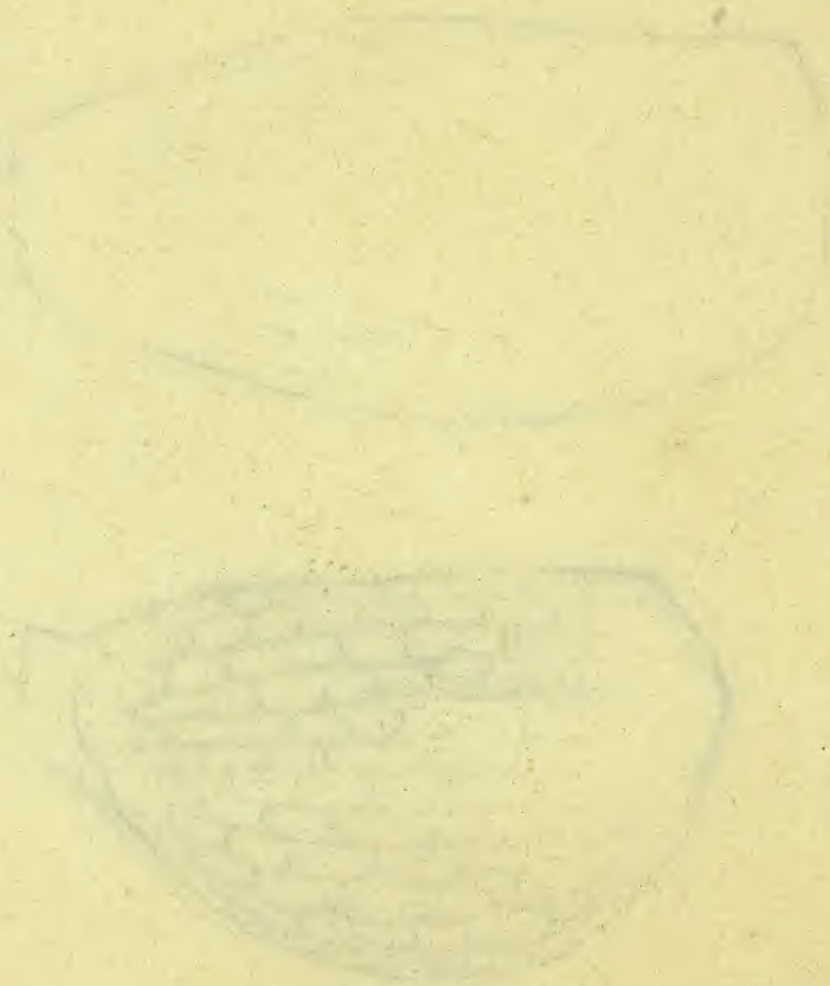

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